

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/24839

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : F16D 27/08, 47/00 US CL : 192/21.5, 48.2, 48.3, 57 According to International Patent Classification (IPC) or to both national classification and IPC														
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 192/21.5, 48.2, 48.3, 57 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EAST														
C. DOCUMENTS CONSIDERED TO BE RELEVANT														
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.												
X — Y	US 6,032,772 A (MOSER et al) 7 March 2000 (07.03.2000), see column 1, lines 56-60, and Fig. 1.	12-14 ----- 1-3, 5, 9-10, 18												
Y	JP 64-83931 A (AISIN AW CO LTD) 29 March 1989 (03.29.1989), see figs. 1-4.	1-3, 5, 9-10, 18												
A, P	US 2005/0040000 A1 (KELLEY, JR et al) 24 February 2005 (24.02.2005), see entire document.	1-18												
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.														
<table border="0"><tr><td colspan="2">* Special categories of cited documents:</td><td>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td></tr><tr><td>"A" document defining the general state of the art which is not considered to be of particular relevance</td><td>"E" earlier application or patent published on or after the international filing date</td><td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td></tr><tr><td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td><td>"O" document referring to an oral disclosure, use, exhibition or other means</td><td>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td></tr><tr><td>"P" document published prior to the international filing date but later than the priority date claimed</td><td></td><td>"&" document member of the same patent family</td></tr></table>			* Special categories of cited documents:		"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"A" document defining the general state of the art which is not considered to be of particular relevance	"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"O" document referring to an oral disclosure, use, exhibition or other means	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"P" document published prior to the international filing date but later than the priority date claimed		"&" document member of the same patent family
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"A" document defining the general state of the art which is not considered to be of particular relevance	"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone												
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"O" document referring to an oral disclosure, use, exhibition or other means	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art												
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Date of the actual completion of the international search 20 July 2005 (20.07.2005)		Date of mailing of the international search report 09 AUG 2005												
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